

REMARKS

Claims 1-4 and 6-9 are all the claims pending in the application.

Claim 1 has been amended herein. In Claim 1, the phrase “and selected from dicyclopentadiene resin and a C5 petroleum resin” has been inserted after “component” on line 7 of the claim. Support for this amendment can be found, for example, in paragraphs [0018] to [0020] of the specification.

Response to the Rejection of Claims 1-3 and 7-9 Under 35 U.S.C. § 102

Claims 1-3 and 7-9 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 6,057,392 to Wideman et al. (“Wideman”).

Wideman is relied upon as disclosing a rubber composition comprising silica, carbon black, rubber and tackifier resin. It is asserted that the rubber components of Wideman include styrene butadiene rubber and butadiene rubber in an amount more than 40 parts by weight. It is also asserted that Wideman teaches that the styrene butadiene rubber may have a bound styrene content of 23.4 and that the amount of butadiene rubber is less than 60 wt%.

Applicants' Response

The present invention is directed to a rubber composition comprising a mixed filler, which comprises carbon black and silica, a rubber component, which comprises at least 40% by weight of butadiene rubber and styrene-butadiene copolymer rubber, and a resin selected from dicyclopentadiene resin and a C5 petroleum resin. The amount of resin in the rubber component is 4-10 parts by weight based on 100 parts by weight of the rubber component.

The presently claimed resins, and the amounts thereof present in the rubber component, increase the hardness of the rubber without decreasing the elongation characteristics of the

rubber. Thus, the claimed rubber composition has both good processability and good hardness at the low strain region of a given level.

Unlike the present invention, Wideman discloses using esters of formula (I) as a thermosetting resin (for simply making rubber hard) or a tackifier resin (for increasing the tackiness). *See, e.g.*, col. 1, line 50.



In formula (I), R^1 is selected from the group consisting of alkyls having 16 to 18 carbon atoms and alkenyls and alkadienyls having 16 to 18 carbon atoms. R^2 is selected from the group consisting of alkyls having 12 to 22 carbon atoms.

Applicants respectfully submit that the fatty acid ester of Wideman is different than the presently claimed resin. Furthermore, Applicants submit that Wideman only teaches using the fatty acid ester for increasing the hardness of rubber hard and as a tackifier resin. The resin of the present invention, however, increases hardness of a rubber without decreasing the elongation characteristics of the rubber.

In view of the foregoing, Applicants respectfully request that the § 102 rejection over Wideman be reconsidered and withdrawn.

Response to the Rejection of Claims 3, 4 and 6 under 35 U.S.C. § 103

Claims 3, 4, 6 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Wideman in view of Sandstrom '766.

Sandstrom '766 is relied upon as disclosing a rubber component comprising 50% butadiene rubber and 50% styrene-butadiene rubber.

Amendment Under 37 C.F.R. § 1.111
U.S. Application No. 10/046,205

Applicants' Response

Applicants respectfully submit that the presently claimed rubber composition is not rendered obvious by the teachings of Wideman in view of Sandstrom '766 for the same reasons that the presently claimed composition is not anticipated by Wideman.

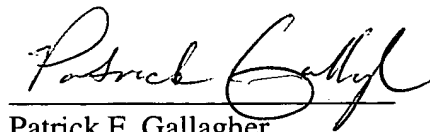
Applicants additionally submit that Sandstrom '766 also fails to teach the presently claimed resin component.

Accordingly, Applicants respectfully request that the § 103 rejection over Wideman in view of Sandstrom '766 be reconsidered and withdrawn.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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